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On norms of operators generated by shift transformations arising in signal and image processing on meshes supplied with semigroup structures

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Abstract

© Published under licence by IOP Publishing Ltd. Shift transformations and linear operators generated by shifts have a number of applications in signal and image processing. This note is concerned with a problem which has arisen in studying properties of real-world signals and images defined on meshes. For processing we suggest to introduce in domains of signals and images different semigroup structures. Semigroup operations give us opportunities to introduce shift transformations of signals and images. We study norms of polynomial filters generated by shift operators.

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